CLAIM SET AS AMENDED

1. (Currently Amended) An acoustic wave sensor for detecting a contact state between ~~a exhaust – intake~~ an exhaust or an intake valve and a valve seat in a cylinder body of ~~valve train for~~ a vehicle engine comprising:

an acoustic wave generating means and an acoustic wave sensing means.

2. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust – intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim 1, wherein said acoustic wave generating means ~~is consisted of~~ includes an acoustic wave oscillator, a first amplifier for amplifying the acoustic wave of the acoustic wave oscillator, and a speaker for ~~diverging~~ outputting the acoustic wave of the first amplifier.

3. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust – intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim 1, wherein said acoustic wave sensing means ~~is consisted of~~ includes an acoustic wave sensing part for sensing an acoustic wave ~~diverged through the~~ outputted from a speaker and converting the acoustic wave into an electric

signal, a second amplifier for amplifying [[a]] the electric signal of the acoustic wave sensing part, and a display part for displaying a signal ~~output from~~ generated by the second amplifier.

4. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust – intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim 1, wherein a speaker is installed at a bending portion of a tubular passage, and ~~said~~ a acoustic wave sensing part is installed at a site under the contact surface between the exhaust or the intake valve and the valve seat.

5. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust – intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim [[1]] 2, wherein said acoustic wave sensing part comprises a condenser microphone for sensing the acoustic wave.

6. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust – intake~~ the exhaust or the intake valve and ~~a~~ the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim 4, wherein a sound shielding member, where said speaker is installed,

is separately mounted to a port part for preventing the acoustic wave from leaking outside of the manifold.

7. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust~~ ~~intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim 2, wherein a speaker is installed at a bending portion of a tubular passage, and said acoustic wave sensing part is installed a site under the contact surface between the valve and the valve seat.

8. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust~~ ~~intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine according to claim 3, wherein a speaker is installed at a bending portion of a tubular passage, and said acoustic wave sensing part is installed a site under the contact surface between the valve and the valve seat.

9. (Currently Amended) The acoustic wave sensor for detecting a contact state between ~~a exhaust~~ ~~intake~~ the exhaust or the intake valve and [[a]] the valve seat in the cylinder body of ~~valve train for a~~ the vehicle engine

according to claim 3, wherein said acoustic wave sensing part comprises a condenser microphone for sensing the acoustic wave.

10. (New) An acoustic wave sensor for detecting a contact state between an exhaust or an intake valve and a valve seat of a valve train of a vehicle engine comprising:

an acoustic wave generating means and an acoustic wave sensing means,

the acoustic wave generating means including a sound emitting device disposed in a manifold of the vehicle engine, and

the acoustic wave sensing means including an acoustic wave sensing part for sensing an acoustic wave outputted from the speaker and converting the acoustic wave into an electric signal, the acoustic wave sensing part being installed under a contact surface between the exhaust or the intake valve and the valve seat.

11. (New) The acoustic wave sensor for detecting a contact state between the exhaust or the intake valve and the valve seat of the valve train of the vehicle engine according to claim 10,

the acoustic wave generating means also including an acoustic wave oscillator, a first amplifier for amplifying the acoustic wave of the acoustic wave oscillator,

the sound emitting device for emitting the acoustic wave of the first amplifier, the sound emitting device being a speaker.

12. (New) The acoustic wave sensor for detecting a contact state between the exhaust or the intake valve and the valve seat of the valve train of the vehicle engine according to claim 10,

the acoustic wave sensing means also including a second amplifier for amplifying the electric signal of the acoustic wave sensing part, and a display part for displaying a signal generated by the second amplifier.

13. (New) An acoustic wave sensor for detecting a contact state between a exhaust or an intake valve and a valve seat of a valve train of a vehicle engine comprising:

an acoustic wave generating means and an acoustic wave sensing means, said acoustic wave generating means including an acoustic wave oscillator, a first amplifier for amplifying the acoustic wave of the acoustic wave oscillator, and a speaker for diverging the acoustic wave of the first amplifier; and

a sound shielding member adjacent to the speaker, the sound shielding member being separately mounted on a port part for preventing the acoustic wave from leaking.

14. (New) The acoustic wave sensor for detecting a contact state between the exhaust or the intake valve and the valve seat of the valve train of the vehicle engine according to claim 13, wherein said acoustic wave sensing part comprises a condenser microphone for sensing the acoustic wave.